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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/545,691	04/07/2000	Barrie Gilbert	1482-132	2100

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EXAMINER
SOBUTKA, PHILIP

ART UNIT	PAPER NUMBER
2683	

DATE MAILED: 12/20/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/545,691	Applicant(s) GILBERT, BARRIE	
	Examiner Philip J. Sobutka	Art Unit 2683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 October 2001* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2,3,9,10,13 and 15-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *23-26* is/are allowed.

6)☒ Claim(s) *2,3,9,10,13 and 15* is/are rejected.

7)☒ Claim(s) *16-22* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Double Patenting

1. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

2. Claim 13 is rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 19 of prior U.S. Patent No. 6,122,497. This is a double patenting rejection. Note that coupling one of the second transistor's terminals to the input terminal in the instant claim is the same as patented claim 13 having one of the second transistor terminals coupled to the first, diode connected transistor, since the first transistor and first inductor are coupled to the input. This reasoning assumes that both claims are directed to the circuit shown in figure 15 in both the patent and the instant application. If this is not the case, it would be appreciated that the supporting figures were pointed out.

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double

patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 2,3 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 2 of U.S. Patent No. 6,122,497. Although the conflicting claims are not identical, they are not patentably distinct from each other because: claim 2 of the patent claims the same matter except for second and third transistors and the first transistor specifically operating in common base mode. It would have been obvious to one of ordinary skill in the art that the claimed arrangement would have functioned as well with different specific circuits and elements, therefore it would have been obvious to one of ordinary skill in the art to modify the patent claim as shown in instant claim 1 in order to allow for the use of other specific circuitry. The claim also differs from patent claim 2 in that the RF mixer has a local oscillator input. Official Notice is taken that it is notoriously well known to use a local oscillator to provide a signal to an RF mixer. It would have been obvious to one of ordinary skill in the art to modify claim 2 of the patent to use a local oscillator signal in order to allow for tuning by local control of the oscillator signal frequency.

As to claim 3, claim 2 of the patent teaches everything claimed as shown above including forming a current mirror coupled to the second terminal of the inductor. It would have been obvious to one of ordinary skill in the art to modify the patent claim as shown in claim 3 in order to provide a common current source for the current mirror.

5. Claims 9 and 10, are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 2 of U.S. Patent No. 6,122,497. Although the conflicting claims are not identical, they are not patentably distinct from each other because .

Regarding claim 9, claim 2 of the patent claims the same matter except for additional details regarding the specific terminal connections of the second transistor and inductor and an additional transistor. It would have been obvious to one of ordinary skill in the art that the claim would have functioned as well with different specific connections, therefore it would have been obvious to one of ordinary skill in the art to modify the patent claim as shown in instant claim 9 in order to allow for the use of other specific circuitry.

Regarding claim 10, claim 2 of the patent claims the same matter except for an additional transistor. It would have been obvious to one of ordinary skill in the art that the claim would have functioned as well with different specific connections, therefore it would have been obvious to one of ordinary skill in the art to modify the patent claim as shown in instant claim 5 in order to allow for the use of other specific circuitry.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Voinigescu et al (US 5,789,799) in view of Mitzlaff (US 5,307,512).

Consider claim 15. Voinigescu teaches an amplifier cell comprising first and second input terminals (Voinigescu, fig 9, RF & LO), fits and second output terminals (Voinigescu, fig 9, IF), first input stage coupled to the first and second output terminals (Voinigescu, fig 9, Q1) and arranged to drive the first and second output terminals responsive to a first input signal.received at the first input terminal; and a second input stage coupled to the first and second output terminals and arranged to drive the first and second output terminals responsive to a second input signals received at the second input terminal (Voinigescu, fig 9, Q3). Voinigescu lacks a teaching of the amplifier stages being class AB. Mitzlaff teaches that class AB operation has higher efficiency when constant envelope modulation schemes such as FM are employed. It would have been obvious to one of ordinary skill in the art to modify Voinigescu to use AB stages for higher efficiency when in FM operation.

Allowable Subject Matter

8. Claims 23-26 are allowed.

9. Claims 16-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. Claims 2,3,9,10,13 would be allowable upon the filling of a terminal disclaimer.

Response to Arguments

11. Applicant's arguments with respect to claim 15 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

12. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip J. Sobutka whose telephone number is 703-305-4825. The examiner can normally be reached on Monday-Friday 8:30-6:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 703-308-5318. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

Philip Sobutka

Pjs
December 15, 2001

WILLIAM TROST
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600